

CLAIMS:

1. A method of installing an anchor bolt in a fixing surface, wherein, first, a first fixing hole for fixing the anchor bolt is drilled in the fixing surface; then, a second fixing hole is drilled from a distal end portion of the first fixing hole in an inclined state; and afterward, an anchor bolt bent at a middle portion thereof is fixed to the first fixing hole and the second fixing hole.

10 2. A method of installing an anchor bolt in a fixing surface, wherein, first, a first fixing hole for fixing the anchor bolt is drilled in the fixing surface; then, a plurality of second fixing holes is drilled from a distal end portion of the first fixing hole in an inclined state; and afterward, an anchor bolt having a plurality of branched portions at a middle portion thereof is fixed to the first fixing hole and the second fixing holes.

20 3. The method of installing an anchor bolt according to claim 1 or claim 2, wherein said first fixing hole is drilled with a first drilling bit detachably attached to a distal end of a first drilling tool; then, the first drilling bit at the distal end of the first drilling tool is replaced with a guide bush; a second drilling tool is inserted through a guide hole formed in the guide bush in an inclined state; and lastly, the second fixing hole is drilled with a second drilling bit detachably attached to a distal end of the second drilling tool.

25 4. The method of installing an anchor bolt according to claim 2 or claim 3, wherein at least one of said plurality of the second fixing holes is drilled to penetrate through an existing reinforcing member installed inside the fixing surface.

5. The method of installing an anchor bolt according to any one of claim 2 to claim 4, wherein said plurality of the branched portions of the anchor bolt is formed of a shape-memory alloy so that a distal end portion of the anchor bolt can open
5 and close according to a temperature change.

6. A method of drilling a fixing hole for fixing an anchor bolt in a fixing surface, wherein a first fixing hole is drilled in the fixing surface; and then, a plurality of second fixing holes is drilled from a distal end portion of the first fixing hole in an inclined state.
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7. The method of drilling a fixing hole for fixing an anchor bolt according to claim 6, wherein said first fixing hole is drilled with a first drilling bit detachably attached to a distal end of a first drilling tool; then, the first drilling bit at the distal end of the first drilling tool is replaced with a guide bush; a second drilling tool is inserted through a guide hole formed in the guide bush in an inclined state; and
20 the second fixing holes are drilled with the second drilling bit detachably attached to a distal end of the second drilling tool.

8. The method of drilling a fixing hole for fixing an anchor bolt according to claim 6 or claim 7, wherein at least one of said plurality of the second fixing holes is drilled to penetrate through an existing reinforcing member installed inside the fixing surface.
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9. A drilling device for drilling a fixing hole for fixing an anchor bolt in a fixing surface, comprising:
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a first drilling tool;
a first drilling bit detachably attached to a distal end of the first drilling tool;
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a guide bush detachably attached to the distal end of the first drilling tool;

a second drilling tool to be inserted through a guide hole formed in the guide bush in an inclined state; and

5 a second drilling bit detachably attached to a distal end of the second drilling tool.

10. The drilling device according to claim 9, wherein said second drilling bit includes a guide portion on an outer 10 circumference surface thereof having a height same as that of a grinding stone.